

# PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-030249  
(43)Date of publication of application : 31.01.2002

(51)Int.CI. C09D183/04  
C09D183/08  
H01L 21/312

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## (54) SILICA COATING LIQUID FOR FORMING LOW DIELECTRIC CONSTANT AND SILICA COAT SUBSTRATE WITH LOW DIELECTRIC CONSTANT

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a silica coating liquid for forming low-dielectric constant with a dielectric constant as small as  $\leq 2.5$ , having low moisture absorbability and high mechanical strength.  
**SOLUTION:** This coating liquid contains (A) at least one silicon compound selected from the group consisting of alkoxysilanes of the general formula (I):  $X_nSi(OR)_4-n$  and silane halides of the general formula (II):  $XnSiX'4-n$  and (B) an organic template material of the general formula (III):  $[R_1R_2R_3R_4N]_n+Y^-$  (in these formulas, X is H, F, a 1-8C alkyl, fluorine-substituted alkyl, aryl or vinyl; R is H, a 1-8C alkyl, aryl or vinyl; X' is a halogen atom; n is an integer of 0-3; R1 is a 1-20C hydrocarbon group; R2 to R4 are each H or a 1-20C hydrocarbon group and may be the same as R1; and Y is a halogen atom or OH).

### LEGAL STATUS

[Date of request for examination] 29.07.2004

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]